Journal of Applied Polymer Science: Polymer Letters Edition

Contents

Volume 25, 1987

Issue 1, January 1987

1 Formation of Monomer Film on Copper Plates and Its Polymerization
K. Mori, A. Watanabe, and Y. Nakamura

5 Synthesis of Conductive Polymers by Laser Irradiation of Chlorinated PVC
C. Decker

11 Soluble, Amorphous, Para-linked Aromatic Polyesters
R. Sinta, R. A. Minns, R. A. Gaudiana, and H. G. Rogers

19 Optical Resolution of DL-Lysine by Polymers with L-Lysine Pendant Group
I. Cho, K.-M. Whang, and J.-G. Park

25 Variation of Unit Cell Parameters of Poly(Arylene Ether Ether Ketone) Film with Annealing Temperature
N. T. Wakelyn

29 The Effect of Emulsifier-Polymer Complex Formation on Particle Nucleation in Emulsion Polymerization
W. A. B. Donners

37 The Enhancement of Polybutene-1 Crystallinity in Polybutene-1/Polypropylene Blends
M.-S. Lee and S.-A. Chen

45 **Book Reviews**

Issue 2, February 1987

57 Graft Copolymerization of Acrylonitrile on Cellulosic Materials
E. F. Okieimen, A. Rahman, and C. O. Oriakhi

61 Intermolecular Polarization Transfer Study of Polymer Blend Compatibility
G. C. Gobbi, R. Silvestri, T. P. Russell, J. R. Lyerla, W. W. Fleming, and T. Nishi

67 Fast Growth Rates of Polyethylene Crystals Grown at High Temperature: Concentration and Molecular Weight Dependence
S. J. Organ and A. Keller

73 Hydrophobic Effects in the Copolymerization of Methacrylic Acid with Acrylamide
C. R. Rajan, Y. S. Srinivas, S. Ponrathnam, K. Radhakrishnan, and U. V. Nayak

79 Die-Swell in Hydroxypropylcellulose Solutions
B. Ernst, P. Navard, and J. M. Haudin

83 **Book Reviews**

Issue 3, March 1987

89 Crosslinking of Cellulose Acetate with Phosphorus Pentoxide
C. J. Biermann and R. Narayan

93 Fluoropolymers of Very Low Surface Energies
R. Ramharack and T. H. Nguyen

99 Head-To-Head Vinyl Halide Copolymers: Solvent Participation in Halogen Addition to Unsaturated Polymers
M. P. Dreyfuss, M. R. Nevius, and P. R. Manninen

VOLUME CONTENTS

105 A Technique for Monitoring the Kinetics of Flow-Induced Crystallization
A. J. McHugh and J. A. Spevacek

111 Thermal Polymerization of Isomeric Dodecadiendiyndiols
N. N. Maldar, S. Guillermina Burillo, T. Ogawa, and C. S. Marvel

121 ^{13}C NMR Study of Cellulose Triacetate in the Solid State
M. Takai, K. Fukuda, and J. Hayashi

127 Improvement in Low-Temperature Toughness of Poly(vinylchloride) by Cocrosslinking with Polyethylene
Y. Nakamura, A. Watanabe, K. Mori, K. Tamura, and H. Miyazaki

131 Syntheses of Poly(styrene-4-Vinylpyridine) Graft Copolymers from Polystyrene Macromonomer
K. Ishizu, T. Ono, T. Fukutomi, and K. Shiraki

137 **Book Reviews**

143 **Announcements**

Issue 4, April 1987

145 Syntheses and Cation Binding Properties of Polymers Bearing Benzodiglymes and Cinnamoyl Units
M. Shirai, H. Ishida, and M. Tanaka

153 Direct Evidence for Ferroelectric Switching in Poly(vinylidene Fluoride) and Poly(vinylidene Fluoride-trifluoroethylene) Crystals
Y. Takahashi, Y. Nakagawa, H. Miyaji, and K. Asai

161 A New Chiral Peptide Analog: Synthesis and Characterization of Poly[4(S)-2-propyl-4-methoxycarbonyl-2-oxazoline
R. E. Hermes and L. J. Mathias

169 Preparation of Graft Copolymers Using a Monofunctional Polystyrene
K. Ishizu and T. Fukutomi

175 Poly(vinyl Acetate) Macromonomer Prepared by Using Functional Azo-initiator
T. Fukutomi, K. Ishizu, and K. Shiraki

181 Kinetic Study on the Photo-Induced Alternating Copolymerization of Methyl Methacrylate and Styrene Using Boron Trichloride
H. Hirai, K. Takeuchi, and M. Komiyama

187 Effect of Pressure on the Free Radical Solution Polymerization of Acrylonitrile and Methylmethacrylate
B. Mohanty, S. K. Palit, and M. Biswas

193 **Book Reviews**

195 **Announcements**

199 **Information for Contributors**

Issue 5, May 1987

201 Thermal Analysis of Ampholytic Polymers
C. Neculescu, S. B. Clough, P. Elayaperumal, J. C. Salamone, and A. C. Watterson

205 Photoluminescence Growth from Photolysed Poly(phenyl Methyl Silane)
L. A. Harrah and J. M. Zeigler

209 Solution Properties of Poly(dimethyldiallylammonium Chloride)
C. W. Burkhardt, K. J. McCarthy, and D. P. Parazak

VOLUME CONTENTS

215 The Reaction of Chlorofluoropolymers with Sulfur Nucleophiles
R. T. Taylor and M. W. Pelter

219 Preparation of a Highly Functionalized Polystyrene-bound Tin Hydride
B. L. Miller and J. W. Hershberger

223 High Sensitive Photopolymers Containing Dibenz[b,f]azepine Group
K. Ashikaga, S. Ito, M. Yamamoto, Y. Nishijima, and Y. Wada

229 Synthesis and Copolymerization of 2,2-Dimethyl-4-Methylene Glutaric Anhydride
D. L. Trumbo, K. J. Abbey, and G. M. Carlson

233 **Book Reviews**

235 **Announcement**

Issue 6, June 1987

237 Block Copolymerization. I. Synthesis of Block Copolymers of Poly(ethylene Oxide-b-Methyl Methacrylate) by the Ceric Ion Method Using 1,4-Dioxane as Solvent
A. S. Gomes, F. M. B. Coutinho, and J. R. D. Marinho

243 Preparation and Polymerization of 2-Phenyl-4-Methylene-1,3-Dioxolane
C.-Y. Pan, Z. Wu, and W. J. Bailey

249 Conformational Transition and Induced Circular Dichroism on Dye Binding to Poly-(L-Ornithine)
M. Atreyi, P. V. Scaria, and M. V. R. Rao

257 Proton T_1 and T_2 Relaxation Times of Wood Components Using ^{13}C CP/MAS NMR
P. Tekely and M. R. Vignon

263 **Book Reviews**

269 **Information for Contributors**

Issue 7, July 1987

273 Location of Methacrylic Acid-Grafted Chains Introduced into Polyolefin Films by Means of Photografting
H. Kubota, N. Koike, Y. Ogiwara, and Y. Hata

279 Synthesis of Poly(ethylene Glycols)-Capped with 5-Fluorouracil Units through Ester Bonds and Their Antitimor Activity
T. Ouchi, H. Yuyama, and O. Vogl

287 Synthesis of Poly(*t*-Butyl Methacrylate) Macromonomer
K. Ishizu, K. Mitsutani, and T. Fukutomi

293 Layer-Selective Metallizing of Paper by Electroless Plating Using Surfactant-Stabilized Palladium Sols
Y. Nakao, T. Imai, and K. Kaeriyama

297 Asymmetric Polymerization of Optically Active Phenyl-2-Pyridyl-o-Tolylmethyl Methacrylate and Remarkable Conformational Change of the Polymer
Y. Okamoto, E. Yashima, and K. Hatada

303 **Book Reviews**

307 **Information for Contributors**

VOLUME CONTENTS

Issue 8, August 1987

309 Exploratory Ring-Opening Polymerization. XIV. Synthesis of 2-Vinylthiepane-1,1-dioxide and Its Ring-Opening Polymerization
Iwhan Cho and Myong-Hoon Lee

313 A Kinetic Model for the Degradation of Polypropylene
S. T. Balke, D. Suwanda, and R. Lew

321 The Synthesis and Characterization of the First Soluble, High Molecular Weight, Substituted Poly(diphenylsilane) Homopolymers
R. D. Miller and R. Sooriyakumaran

327 The Interaction of Calcium with HEMA/MAA Copolymers
M. R. Van De Mark, N. D. Lian, M. Brandon, and E. C. Ekstein

331 Structure and Properties of Poly(Ethylene Terephthalate) Crystallized by Prolonged Annealing in the Highly Oriented State
Kuniyoshi Itoyama

339 Enhanced Radical Reactivity by Supplying a Physicomechanical Action on Unique Plasma-Polymerized Ultrathin Films
Masayuki Kuzuya, Masauara Nakanishi, Yasukichi Yanagihara, and Takachiyo Okuda

345 Synthesis of Poly(β-anine) on the Surface of the Functional Lamella
K. Hanabusa, K. Higashida, H. Tsutsumi, H. Shirai, T. Hayakawa, and N. Hojo

351 Mixtures of Two Mesomorphic Cellulosic Polymers
S. Ambrosino, T. Khallala, M. J. Seurin, A. Ten Bosch, F. Fried, P. Maissa, and P. Sixou

359 **Book Reviews**

361 **Information for Contributors**

Issue 9, September 1987

363 Solid-State Polyamidation of Hexamethylenediammonium Adipate in the Presence of Acid Catalysts. I. Preparation of the Catalyst Containing Monomer
Constantine D. Papaspyrides

369 Preparation of Ultrafine Magnetic Particles by Using Finely Porous Membrane
Yōichi Kurokawa and Kōichi Haneda

373 Sensitized Photoreduction of Methyl Viologen to its Cation Radical in Polymer Matrices by Visible-light Irradiation
Bunsho Ohtani, Hiroshi Miyadzu, Sei-Ichi Nishimoto, Taichi Ogawa, and Tsutomu Kagiya

377 Polymers Derived from Bis(4-hydroxyphthalimide)s, I Preparation and Properties of Bis(4-hydroxyphthalimide)s
S. Sasaki and Y. Hasuda

383 Ultraviolet and Visible Light-induced Photochromic Action of Poly(vinyl Alcohol) Film Containing Colloidal and Suspended Semiconductor Materials
Bunsho Ohtani, Shuji Adzuma, Sei-Ichi Nishimoto, and Tsutomu Kagiya

389 Functional Monomers and Polymers. CLV Asymmetric Inclusion Polymerization of (E, E)-2,4-Hexadiene in Deoxycholic and Apocholic Acid Canals
Mikiji Miyata, Fusaharu Noma, Toshitaka Tsuzuki, and Kiichi Takemoto

395 An Electroactive Polymer Film Prepared by Electrooxidative Polymerization of *p,p'*-Biphenol
Takeo Ohsaka, Fumihiro Yoshimura, Tomoaki Hirokawa, and Noboru Oyama

399 **Book Reviews**

405 **Announcement**

VOLUME CONTENTS

Issue 10, October 1987

407 Estimation of Alfrey–Price *e* Value from Quantum Chemical Calculations Data
O. A. Ivashkevich, P. N. Gaponik, and O. N. Bubel

413 Functional Metallo-macrocycle Derivatives and Their Polymers 19*. Synthesis of Water Soluble Metallophthalocyanine Derivatives and Formaldehyde Condensation with Methylolurea
Hiroshi Itoh, Kenji Hanabusa, Etsuko Masuda, Hirofusa Shirai, and Nobumasa Hojo

417 Crosslinking of 2,3-Epoxypropyl Methacrylate Copolymer Films by the Use of Photochemically Produced Pendent Amino Groups
Kyoung-Hun Song, Atsushi Urano, Masahiro Tsunooka, and Makoto Tanaka

423 **Book Reviews**

429 **Information for Contributors**

Issue 11, November 1987

431 Degradation of a Graft Copolymer: Methyl Methacrylate-Amylose
M. Del Carmen Gonzalez, Fernando Zamora, and Gonzalo Martin Guzman

437 Polymer with Thermosensitive Opacity: Poly(2-hydroxyethylmethacrylate-co-dially isophthalate)
T. Kojima, Y. Urata, and T. Morikawa

441 High Modulus and High-Strength Polybiphenyltetracarbosimide Films
Masakatsu Kochi, Tai Uruji, Takayuki Iizuka, Itaru Mita, and Rikio Yokota

447 Interpenetrating Network of Metal Polymer Composite (INMPC) of Polycarbonate
Mohammad A. Semsarzadeh

451 A New Nonhydrolyzabe Ether Crosslinking Agent Containing Two Methacrylate Units Linked through the α-methyl Carbons
Lon J. Mathias and Selim H. Kusefoglu

455 Fibrilar Morphology of the Electrochemically Polymerized Polyaniline in Tetrafluoroboric Acid Aqueous Solution
Show-An Chen and Tein-San Lee

461 **Book Reviews**

467 **Announcements**

Issue 12, December 1987

471 Additive Selection Criteria for Metal-Doped Polyimides
E. Khor, H. S. O. Chan, T. S. A. Hor, and J. R. Lusty

477 E, Z Assignments of Isophorone Diisocyanate (IPDI) and Their Implications on the Relative Reactivity of the Isocyanate Groups
K. Hatada, K. Ute, and P. Pappas

481 Anomalous Chemomechanical Characteristics of Electro-Activated Polyelectrolyte Gels
Y. Osada, R. Kishi, and M. Hasebe

487 Polyethylene. Kinetics of Crosslink Formation as Observed in a Semilocal Space-Scale Using NMR
J. P. Cohen-Addad and C. Schmit

495 Thermocontrol of Electron Transport through Ternary Composite Membranes Composed of Polymer/Liquid Crystal/Electron Carriers
S. Shinkai, K. Shimamoto, S. Nakamura, O. Manabe, and T. Kajiyama

VOLUME CONTENTS

503 Stabilized Polyethylenetherephthalate Strength
N. R. Prokopchuck, Y. I. Matusevich, and L. P. Krul

509 **Book Reviews**

513 **Information for Contributors**

i **Author and Subject Indexes**

Volume Contents follows Subject Index